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(54) Title: HUMAN OBESITY SUSCEPTIBILITY GENE AND USES THEREOF

(57) Abstract: The present invention discloses the identification of a human obesity susceptibility gene, which can be used for the diagnosis, prevention and treatment of obesity and related disorders, as well as for the screening of therapeutically active drugs. The invention more specifically discloses that the MAP3K11 gene on chromosome 11 and certain alleles thereof are related to susceptibility to obesity and represent novel targets for therapeutic intervention. The present invention relates to particular mutations in the MAP3K11 gene and expression products, as well as to diagnostic tools and kits based on these mutations. The invention can be used in the diagnosis of predisposition to, detection, prevention and/or treatment of coronary heart disease and metabolic disorders, including hypoalphalipoproteinemia, familial combined hyperlipidemia, insulin resistant syndrome X or multiple metabolic disorder, coronary artery disease, diabetes and dyslipidemic hypertension.